

Serial Number: 09/835/776 A

**ENTERED**

#4

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: \_\_\_\_\_
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: \_\_\_\_\_
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically: \_\_\_\_\_
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



OIPE

## RAW SEQUENCE LISTING

DATE: 03/29/2002

PATENT APPLICATION: US/09/835,996A

TIME: 08:29:14

Input Set : A:\PTO\_MS.txt

Output Set: N:\CRF3\03292002\I835996A.raw

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3 <110> APPLICANT: Ballinger, Dennis
4     Loeb, Debra
5     Montgomery, Julie
6     Tang, Y. Tom
7     Zhou, Ping
8     Goodrich, Ryle
9     Liu, Chenghua
10    Asundi, Vinod
11    Zhao, Qing
12    Wehrman, Tom
13    Drmanac, Radoje
14    Ren, Feiyan
15    Qian, Xiahong
16    Wang, Dunrui
18 <120> TITLE OF INVENTION: MATERIALS AND METHODS RELATING TO LIPID METABOLISM
20 <130> FILE REFERENCE: 28110/35915A
22 <140> CURRENT APPLICATION NUMBER: US/09/835,996A
23 <141> CURRENT FILING DATE: 2001-04-16
25 <150> PRIOR APPLICATION NUMBER: US 60/197,137
26 <151> PRIOR FILING DATE: 2000-04-14
28 <150> PRIOR APPLICATION NUMBER: US 09/714,936
29 <151> PRIOR FILING DATE: 2000-11-17
31 <150> PRIOR APPLICATION NUMBER: US 09/667,298
32 <151> PRIOR FILING DATE: 2000-09-22
34 <150> PRIOR APPLICATION NUMBER: US 09/631,451
35 <151> PRIOR FILING DATE: 2000-08-03
37 <150> PRIOR APPLICATION NUMBER: US 09/598,042
38 <151> PRIOR FILING DATE: 2000-06-20
40 <160> NUMBER OF SEQ ID NOS: 45
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47 <213> ORGANISM: Homo sapiens
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51 <222> LOCATION: (46)..(1143)
53 <220> FEATURE:
54 <221> NAME/KEY: misc_feature
55 <222> LOCATION: (1758)
56 <223> OTHER INFORMATION: n = a, g, c or t
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57

## RAW SEQUENCE LISTING

DATE: 03/29/2002

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TIME: 08:29:14

Input Set : A:\PTO\_MS.txt

Output Set: N:\CRF3\03292002\I835996A.raw

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66 Ala Ala Val Leu Thr Trp Ala Leu Ala Leu Leu Ser Ala Phe Ser Ala
67 5                               10                               15                               20
69 acc cag gca cgg aaa ggc ttc tgg gac tac ttc agc cag acc agc ggg      153
70 Thr Gln Ala Arg Lys Gly Phe Trp Asp Tyr Phe Ser Gln Thr Ser Gly
71                               25                               30                               35
73 gac aaa ggc agg gtg gag cag atc cat cag cag aag atg gct cgc gag      201
74 Asp Lys Gly Arg Val Glu Gln Ile His Gln Gln Lys Met Ala Arg Glu
75                               40                               45                               50
77 ccc gcg acc ctg aaa gac agc ctt gag caa gac ctc aac aat atg aac      249
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79                               55                               60                               65
81 aag ttc ctg gaa aag ctg agg cct ctg agt ggg agc gag gct cct cgg      297
82 Lys Phe Leu Glu Lys Leu Arg Pro Leu Ser Gly Ser Glu Ala Pro Arg
83 70                               75                               80
85 ctc cca cag gac ccg gtg ggc atg cgg cgg cag ctg cag gag gag ttg      345
86 Leu Pro Gln Asp Pro Val Gly Met Arg Arg Gln Leu Gln Glu Glu Leu
87 85                               90                               95                               100
89 gag gag gtg aag gct cgc ctc cag ccc tac atg gca gag gcg cac gag      393
90 Glu Glu Val Lys Ala Arg Leu Gln Pro Tyr Met Ala Glu Ala His Glu
91                               105                               110                               115
93 ctg gtg ggc tgg aat ttg gag ggc ttg cgg cag caa ctg aag ccc tac      441
94 Leu Val Gly Trp Asn Leu Glu Gly Leu Arg Gln Gln Leu Lys Pro Tyr
95                               120                               125                               130
97 acg atg gat ctg atg gag cag gtg gcc ctg cgc gtg cag gag ctg cag      489
98 Thr Met Asp Leu Met Glu Gln Val Ala Leu Arg Val Gln Glu Leu Gln
99                               135                               140                               145
101 gag cag ttg cgc gtg gtg ggg gaa gac acc aag gcc cag ttg ctg ggg      537
102 Glu Gln Leu Arg Val Val Gly Glu Asp Thr Lys Ala Gln Leu Leu Gly
103 150                               155                               160
105 ggc gtg gac gag gct tgg gct ttg ctg cag gga ctg cag agc cgc gtg      585
106 Gly Val Asp Glu Ala Trp Ala Leu Leu Gln Gly Leu Gln Ser Arg Val
107 165                               170                               175                               180
109 gtg cac cac acc ggc cgc ttc aaa gag ctc ttc cac cca tac gcc gag      633
110 Val His His Thr Gly Arg Phe Lys Glu Leu Phe His Pro Tyr Ala Glu
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113 agc ctg gtg agc ggc atc ggg cgc cac gtg cag gag ctg cac cgc agt      681
114 Ser Leu Val Ser Gly Ile Gly Arg His Val Gln Glu Leu His Arg Ser
115                               200                               205                               210
117 gtg gct ccg cac gcc ccc gcc agc ccc gcg cgc ctc agt cgc tgc gtg      729
118 Val Ala Pro His Ala Pro Ala Ser Pro Ala Arg Leu Ser Arg Cys Val
119                               215                               220                               225
121 cag gtg ctc tcc cgg aag ctc acg ctc aag gcc aag gcc ctg cac gca      777
122 Gln Val Leu Ser Arg Lys Leu Thr Leu Lys Ala Lys Ala Leu His Ala
123 230                               235                               240
125 cgc atc cag cag aac ctg gac cag ctg cgc gaa gag ctc agc aga gcc      825
126 Arg Ile Gln Gln Asn Leu Asp Gln Leu Arg Glu Glu Leu Ser Arg Ala

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Input Set : A:\PTO\_MS.txt

Output Set: N:\CRF3\03292002\I835996A.raw

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130 Phe Ala Gly Thr Gly Thr Glu Glu Gly Ala Gly Pro Asp Pro Gln Met
131          265          270          275
133 ctc tcc gag gag gtg cgc cag cga ctt cag gct ttc cgc cag gac acc      921
134 Leu Ser Glu Glu Val Arg Gln Arg Leu Gln Ala Phe Arg Gln Asp Thr
135          280          285          290
137 tac ctg cag ata gct gcc ttc act cgc gcc atc gac cag gag act gag      969
138 Tyr Leu Gln Ile Ala Ala Phe Thr Arg Ala Ile Asp Gln Glu Thr Glu
139          295          300          305
141 gag gtc cag cag cag ctg gcg cca cct cca cca ggc cac agt gcc ttc      1017
142 Glu Val Gln Gln Gln Leu Ala Pro Pro Pro Pro Gly His Ser Ala Phe
143          310          315          320
145 gcc cca gag ttt caa caa aca gac agt ggc aag gtt ctg agc aag ctg      1065
146 Ala Pro Glu Phe Gln Gln Thr Asp Ser Gly Lys Val Leu Ser Lys Leu
147 325          330          335          340
149 cag gcc cgt ctg gat gac ctg tgg gaa gac atc act cac agc ctt cat      1113
150 Gln Ala Arg Leu Asp Asp Leu Trp Glu Asp Ile Thr His Ser Leu His
151          345          350          355
153 gac cag ggc cac agc cat ctg ggg gac ccc tgaggatcta cctgcccagg      1163
154 Asp Gln Gly His Ser His Leu Gly Asp Pro
155          360          365
157 cccattccca gctccttgct tggggagcct tggtctctgag cctctagcat gggttcagtc      1223
159 ttgaaagtgg cctgttggtt ggagggtgga aggtcctgtg caggacaggg aggccaccaa      1283
161 aggggctgct gtctcctgca tatccagcct cctgcgactc cccaatctgg atgcattaca      1343
163 ttcaccaggc tttgcaaacc cagcctccca gtgctcattt gggaatgctc atgagttact      1403
165 ccattcaagg gtgagggagt agggagggag aggcaccatg catgtgggtg attatctgca      1463
167 agcctgtttg cgtgatgct ggaagcctgt gccactacat cctggagtgt ggctctagtc      1523
169 acttctggct gctgtgtgct cactgctaca gctggtccac agagaggagc acttgtctcc      1583
171 ccagggctgc catggcagct atcaggggaa tagaaggag aaagagaata tcatggggag      1643
173 aacatgtgat ggtgtgtgaa tatcctgct ggctctgatg ctggtgggta cgaaagggtg      1703
W--> 175 gggtctgggat aagagagggc agagcccatg ttttctgaca taactctaca cctanataag      1763
177 ggactgaacc cttccaactg cgggagctcc ttaaaccctt ctggggagca tactgggggc      1823
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183 <211> LENGTH: 366
184 <212> TYPE: PRT
185 <213> ORGANISM: Homo sapiens
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194          20          25          30
197 Gln Thr Ser Gly Asp Lys Gly Arg Val Glu Gln Ile His Gln Gln Lys
198          35          40          45
201 Met Ala Arg Glu Pro Ala Thr Leu Lys Asp Ser Leu Glu Gln Asp Leu
202          50          55          60
205 Asn Asn Met Asn Lys Phe Leu Glu Lys Leu Arg Pro Leu Ser Gly Ser
206 65          70          75          80

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DATE: 03/29/2002

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Input Set : A:\PTO\_MS.txt

Output Set: N:\CRF3\03292002\I835996A.raw

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214      100     105     110
217 Glu Ala His Glu Leu Val Gly Trp Asn Leu Glu Gly Leu Arg Gln Gln
218      115     120     125
221 Leu Lys Pro Tyr Thr Met Asp Leu Met Glu Gln Val Ala Leu Arg Val
222      130     135     140
225 Gln Glu Leu Gln Glu Gln Leu Arg Val Val Gly Glu Asp Thr Lys Ala
226 145      150     155     160
229 Gln Leu Leu Gly Gly Val Asp Glu Ala Trp Ala Leu Leu Gln Gly Leu
230      165     170     175
233 Gln Ser Arg Val Val His His Thr Gly Arg Phe Lys Glu Leu Phe His
234      180     185     190
237 Pro Tyr Ala Glu Ser Leu Val Ser Gly Ile Gly Arg His Val Gln Glu
238      195     200     205
241 Leu His Arg Ser Val Ala Pro His Ala Pro Ala Ser Pro Ala Arg Leu
242      210     215     220
245 Ser Arg Cys Val Gln Val Leu Ser Arg Lys Leu Thr Leu Lys Ala Lys
246 225      230     235     240
249 Ala Leu His Ala Arg Ile Gln Gln Asn Leu Asp Gln Leu Arg Glu Glu
250      245     250     255
253 Leu Ser Arg Ala Phe Ala Gly Thr Gly Thr Glu Glu Gly Ala Gly Pro
254      260     265     270
257 Asp Pro Gln Met Leu Ser Glu Glu Val Arg Gln Arg Leu Gln Ala Phe
258      275     280     285
261 Arg Gln Asp Thr Tyr Leu Gln Ile Ala Ala Phe Thr Arg Ala Ile Asp
262      290     295     300
265 Gln Glu Thr Glu Glu Val Gln Gln Gln Leu Ala Pro Pro Pro Pro Gly
266 305      310     315     320
269 His Ser Ala Phe Ala Pro Glu Phe Gln Gln Thr Asp Ser Gly Lys Val
270      325     330     335
273 Leu Ser Lys Leu Gln Ala Arg Leu Asp Asp Leu Trp Glu Asp Ile Thr
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278      355     360     365
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284 <213> ORGANISM: Homo sapiens
286 <220> FEATURE:
287 <221> NAME/KEY: CDS
288 <222> LOCATION: (181)..(1146)
290 <400> SEQUENCE: 3
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295 tcaacattca gcagaggccc cagatcagcg tctgagccag gccacaatg accaaggagg      180
297 atg gga tcc tgg gtg cag ctc atc aca agc gtc ggg gtg cag caa aac      228
298 Met Gly Ser Trp Val Gln Leu Ile Thr Ser Val Gly Val Gln Gln Asn

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## RAW SEQUENCE LISTING

DATE: 03/29/2002

PATENT APPLICATION: US/09/835,996A

TIME: 08:29:14

Input Set : A:\PTO\_MS.txt

Output Set: N:\CRF3\03292002\I835996A.raw

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299 1          5          10          15
301 cat cca ggc tgg aca gtg gct gga cag ttc caa gaa aag aaa cgc ttc      276
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303          20          25          30
305 act gaa gaa gtc att gaa tac ttc cag aag aaa gtt agc cca gtg cat      324
306 Thr Glu Glu Val Ile Glu Tyr Phe Gln Lys Lys Val Ser Pro Val His
307          35          40          45
309 ctg aaa atc ctg ctg act agc gat gaa gcc tgg aag aga ttc gtg cgt      372
310 Leu Lys Ile Leu Leu Thr Ser Asp Glu Ala Trp Lys Arg Phe Val Arg
311          50          55          60
313 gtg gct gaa ttg ccc agg gaa gaa gca gat gct ctc tat gaa gct ctg      420
314 Val Ala Glu Leu Pro Arg Glu Glu Ala Asp Ala Leu Tyr Glu Ala Leu
315 65          70          75          80
317 aag aat ctt aca cca tat gtg gct att gag gac aaa gac atg cag caa      468
318 Lys Asn Leu Thr Pro Tyr Val Ala Ile Glu Asp Lys Asp Met Gln Gln
319          85          90          95
321 aaa gaa cag cag ttt agg gag tgg ttt ttg aaa gag ttt cct caa atc      516
322 Lys Glu Gln Gln Phe Arg Glu Trp Phe Leu Lys Glu Phe Pro Gln Ile
323          100          105          110
325 aga tgg aag att cag gag tcc ata gaa agg ctt cgt gtc att gca aat      564
326 Arg Trp Lys Ile Gln Glu Ser Ile Glu Arg Leu Arg Val Ile Ala Asn
327          115          120          125
329 gag att gaa aag gtc cac aga ggc tgc gtc atc gcc aat gtg gtg tct      612
330 Glu Ile Glu Lys Val His Arg Gly Cys Val Ile Ala Asn Val Val Ser
331          130          135          140
333 ggc tcc act ggc atc ctg tct gtc att ggc gtt atg ttg gca cca ttt      660
334 Gly Ser Thr Gly Ile Leu Ser Val Ile Gly Val Met Leu Ala Pro Phe
335 145          150          155          160
337 aca gca ggg ctg agc ctg agc att act gca gct ggg gta ggg ctg gga      708
338 Thr Ala Gly Leu Ser Leu Ser Ile Thr Ala Ala Gly Val Gly Leu Gly
339          165          170          175
341 ata gca tct gcc acg gct ggg atc gcc tcc agc atc gtg gag aac aca      756
342 Ile Ala Ser Ala Thr Ala Gly Ile Ala Ser Ser Ile Val Glu Asn Thr
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345 tac aca agg tca gca gaa ctc aca gcc agc agg ctg act gca acc agc      804
346 Tyr Thr Arg Ser Ala Glu Leu Thr Ala Ser Arg Leu Thr Ala Thr Ser
347          195          200          205
349 act gac caa ttg gag gca tta agg gac att ctg cat gac atc aca ccc      852
350 Thr Asp Gln Leu Glu Ala Leu Arg Asp Ile Leu His Asp Ile Thr Pro
351          210          215          220
353 aat gtg ctt tcc ttt gca ctt gat ttt gac gaa gcc aca aaa atg att      900
354 Asn Val Leu Ser Phe Ala Leu Asp Phe Asp Glu Ala Thr Lys Met Ile
355 225          230          235          240
357 gcg aat gat gtc cat aca ctc agg aga tct aaa gcc act gtt gga cgc      948
358 Ala Asn Asp Val His Thr Leu Arg Arg Ser Lys Ala Thr Val Gly Arg
359          245          250          255
361 cct ttg att gct tgg cga tat gta cct ata aat gtt gtt gag aca ctg      996
362 Pro Leu Ile Ala Trp Arg Tyr Val Pro Ile Asn Val Val Glu Thr Leu
363          260          265          270

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Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

## VERIFICATION SUMMARY

DATE: 03/29/2002

PATENT APPLICATION: US/09/835,996A

TIME: 08:29:15

Input Set : A:\PTO\_MS.txt

Output Set: N:\CRF3\03292002\I835996A.raw

L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:1405 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:2799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:3191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
L:6811 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34  
L:6963 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36  
L:7648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44



**Does Not Comply  
Corrected Diskette Needed**

OIPE

## RAW SEQUENCE LISTING

DATE: 03/29/2002

PATENT APPLICATION: US/09/835,996A

TIME: 08:24:57

Input Set : A:\PTO\_MS.txt

Output Set: N:\CRF3\03292002\I835996A.raw

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3 <110> APPLICANT: Ballinger, Dennis
4      Loeb, Debra
5      Montgomery, Julie
6      Tang, Y. Tom
7      Zhou, Ping
8      Goodrich, Ryle
9      Liu, Chenghua
10     Asundi, Vinod
11     Zhao, Qing
12     Wehrman, Tom
13     Drmanac, Radoje
14     Ren, Feiyan
15     Qian, Xiahong
16     Wang, Dunrui
18 <120> TITLE OF INVENTION: MATERIALS AND METHODS RELATING TO LIPID METABOLISM
20 <130> FILE REFERENCE: 28110/35915A
22 <140> CURRENT APPLICATION NUMBER: US/09/835,996A
23 <141> CURRENT FILING DATE: 2001-04-16
25 <150> PRIOR APPLICATION NUMBER: US 60/197,137
26 <151> PRIOR FILING DATE: 2000-04-14
28 <150> PRIOR APPLICATION NUMBER: US 09/714,936
29 <151> PRIOR FILING DATE: 2000-11-17
31 <150> PRIOR APPLICATION NUMBER: US 09/667,298
32 <151> PRIOR FILING DATE: 2000-09-22
34 <150> PRIOR APPLICATION NUMBER: US 09/631,451
35 <151> PRIOR FILING DATE: 2000-08-03
37 <150> PRIOR APPLICATION NUMBER: US 09/598,042
38 <151> PRIOR FILING DATE: 2000-06-20
40 <160> NUMBER OF SEQ ID NOS: 45
42 <170> SOFTWARE: PatentIn version 3.0

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## ERRORED SEQUENCES

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7726 <210> SEQ ID NO: 45
7727 <211> LENGTH: 281
7728 <212> TYPE: PRT
7729 <213> ORGANISM: Homo sapiens
7731 <400> SEQUENCE: 45
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7733 1          5          10          15
7736 Asp Thr Thr Met Ser Leu His Ser Gln Ala Ser Ala Thr Thr Arg His
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## RAW SEQUENCE LISTING

DATE: 03/29/2002

PATENT APPLICATION: US/09/835,996A

TIME: 08:24:58

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Output Set: N:\CRF3\03292002\I835996A.raw

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7746      50      55      60
7749 Gln Glu Leu Gln Ser Leu Gln Val Gln Asn Ile Lys Leu Ala Gly Ser
7750 65      70      75      80
7753 Leu Gln His Val Ala Glu Lys Leu Cys Arg Glu Leu Tyr Asn Lys Ala
7754      85      90      95
7757 Gly Gly Tyr Thr Arg Asn Met Val Pro Ala Ser Ala Ser Ser Glu Ser
7758      100     105     110
7761 Leu Arg Gln Leu Pro His Met Gly Glu Ser Ala Ala Ala His Arg Cys
7762      115     120     125
7765 Ser Pro Cys Thr Glu Gln Trp Lys Trp His Gly Asp Asn Cys Tyr Gln
7766      130     135     140
7769 Phe Tyr Lys Asp Ser Lys Ser Trp Glu Asp Cys Lys Tyr Phe Cys Leu
7770 145     150     155     160
7773 Ser Glu Asn Ser Thr Met Leu Lys Ile Asn Lys Gln Glu Asp Leu Glu
7774      165     170     175
7777 Phe Ala Ala Ser Gln Ser Tyr Ser Glu Phe Phe Tyr Ser Tyr Trp Thr
7778      180     185     190
7781 Gly Leu Leu Arg Pro Asp Ser Gly Lys Ala Trp Leu Trp Met Asp Gly
7782      195     200     205
7785 Thr Pro Phe Thr Ser Glu Leu Phe His Ile Ile Ile Asp Val Thr Ser
7786      210     215     220
7789 Pro Arg Ser Arg Asp Cys Val Ala Ile Leu Asn Gly Met Ile Phe Ser
7790 225     230     235     240
7793 Lys Asp Cys Lys Glu Leu Lys Arg Cys Val Cys Glu Arg Arg Ala Gly
7794      245     250     255
7797 Met Val Lys Pro Glu Ser Leu His Val Pro Pro Glu Thr Leu Gly Glu
7798      260     265     270
7801 Gly Asp Met His His His His His His
7802      275     280

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E--Y 7807 - 90 -

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## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/835,996A

DATE: 03/29/2002

TIME: 08:24:59

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L:1418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:2799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:3191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
L:6811 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34  
L:6963 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36  
L:7648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44  
L:7807 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:45